ALTERNATE PERFORMANCE PROCEDURES FOR THE SURGITRON 4.0 DUAL RF/120

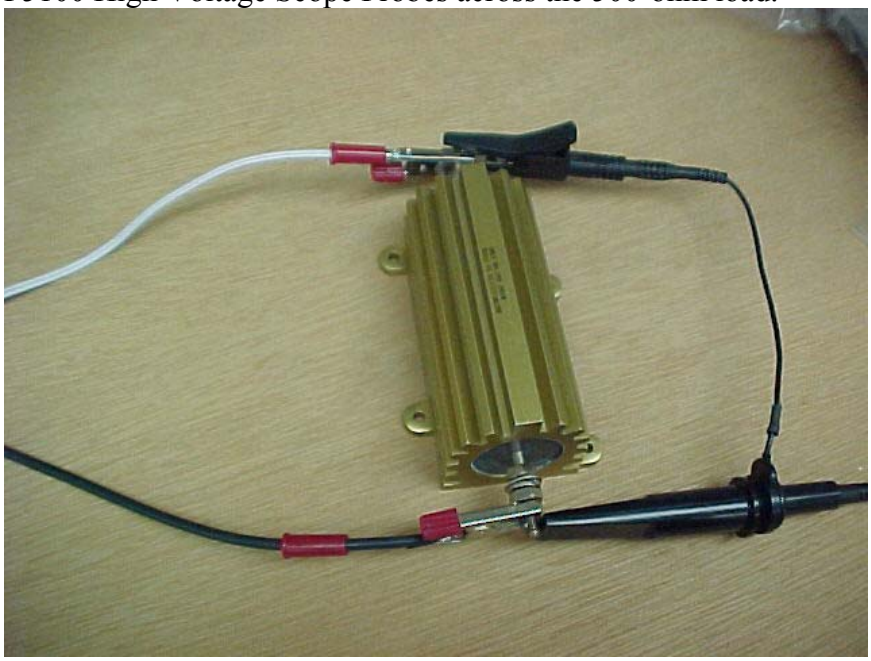
Equipment Needed

ITEM	Description	Qty	Manufacturer	Manufacturer P/N	Vendor	Vendor P/N
1	Viskay/Dale Power Resistor, 500 Ohm, 250 watt 1%	1	Viskay/Dale	NH250500R0FJ01	Mouser	71-NH250-500
2	Oscilloscope	1				
3	High Voltage Scope Probes X100	1	Tektronix	P5100		
4	8-inch Neutral jumper	1				
5	8- inch Handpiece jumper	1				

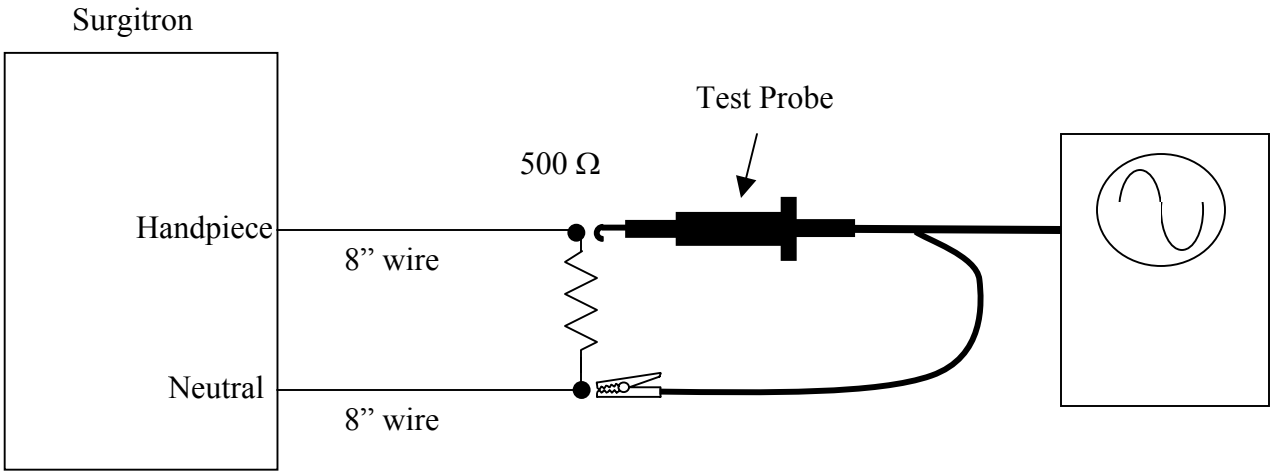
Using an RF303RF Electrosurgery Performance Analyzer or equivalent check out the Bipolar output of the SURGITRON 4.0 DUAL RF/120 conforms Figure 4.3.1

Since Electrosurgery Performance Analyzers are not calibrated for measurements at 4 MHz, Monopolar performance must use the following procedure:

1. Connect a 500-ohm load to the IEC using the 8-inch Jumpers and connect the P5100 High Voltage Scope Probes across the 500-ohm load.



**Caution: do not use a normal scope probe as it could result in damage to the oscilloscope.



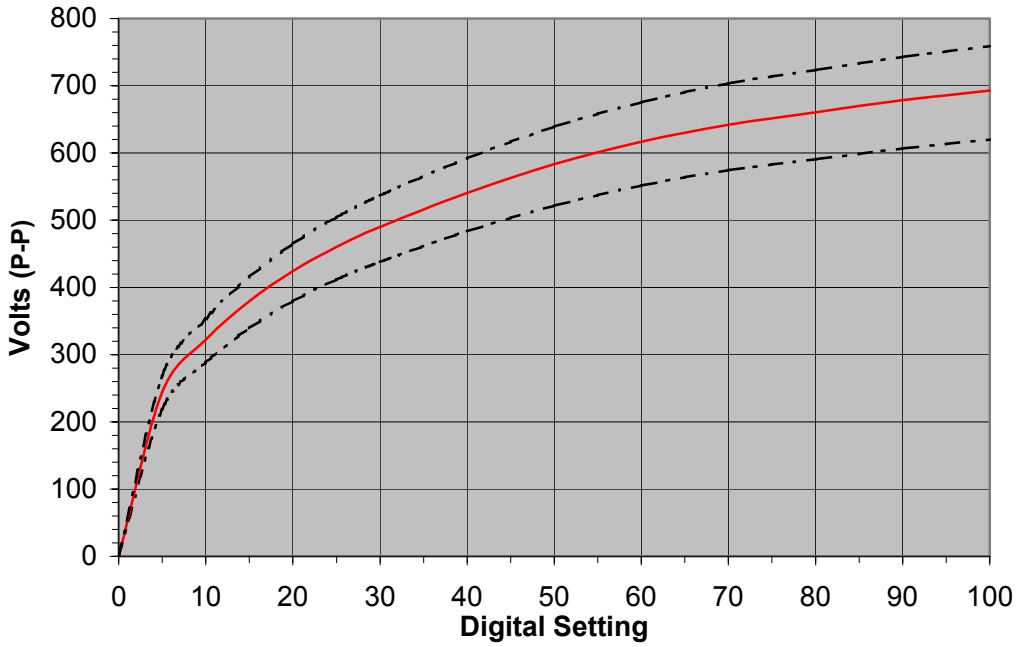
Test Setup

2. Measure the Peak-Peak Volts across the 500 ohm load and confirm using the table below that the unit is within limits of figure 4.3.8.

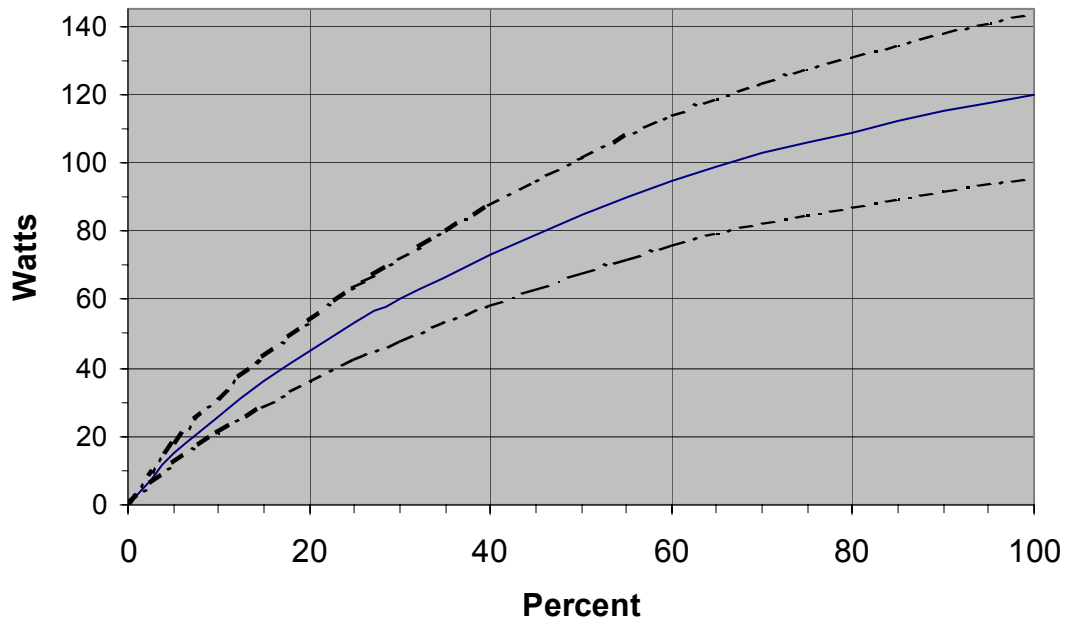
Percent Power	Output Power (Watts)	Peak Volts	Limits	
0	0	0	0	0
5	15	245	219	268
10	26	323	288	353
15	36	380	339	416
20	45	424	380	465
25	53	461	412	504
30	60	490	438	537
40	73	540	483	592
50	85	583	522	639
60	95	617	551	675
70	103	642	574	703
80	109	660	591	723
90	115	678	607	743
100	120	693	620	759

Figure 4.3.8 - Voltage Output vs Digital Setting

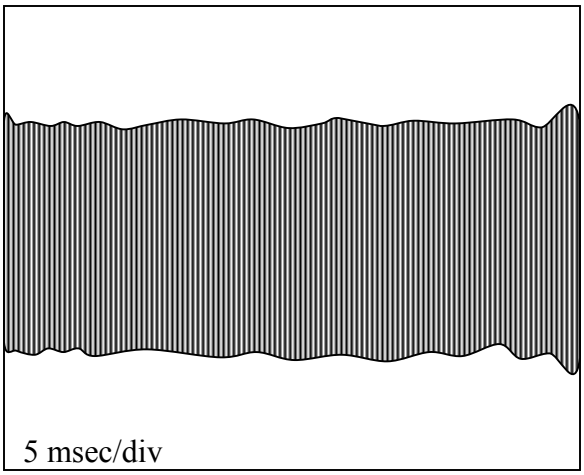
500 ohm load



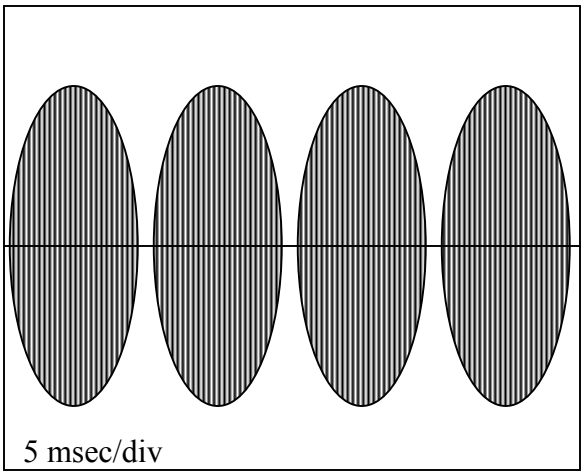
IEC III Power Output



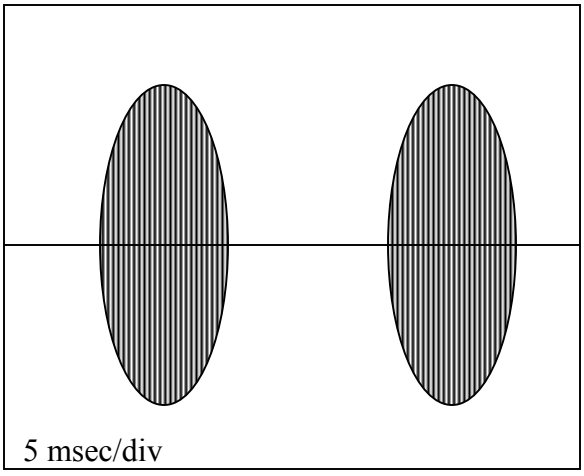
At 5% setting observe waveforms for each mode and confirm they are correct.



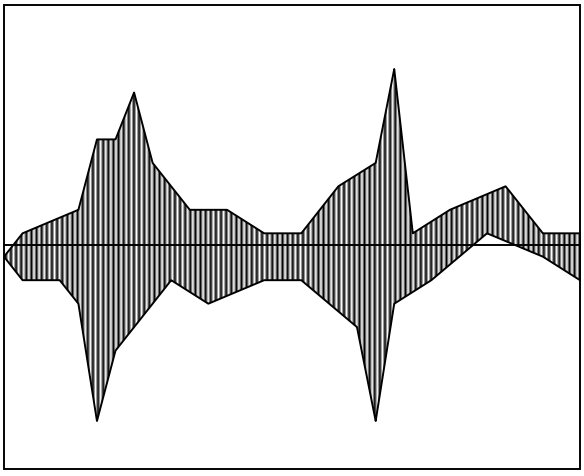
CUT Mode



CUT/COAG (BLEND) Mode



HEMO Mode



Fulguration Mode